

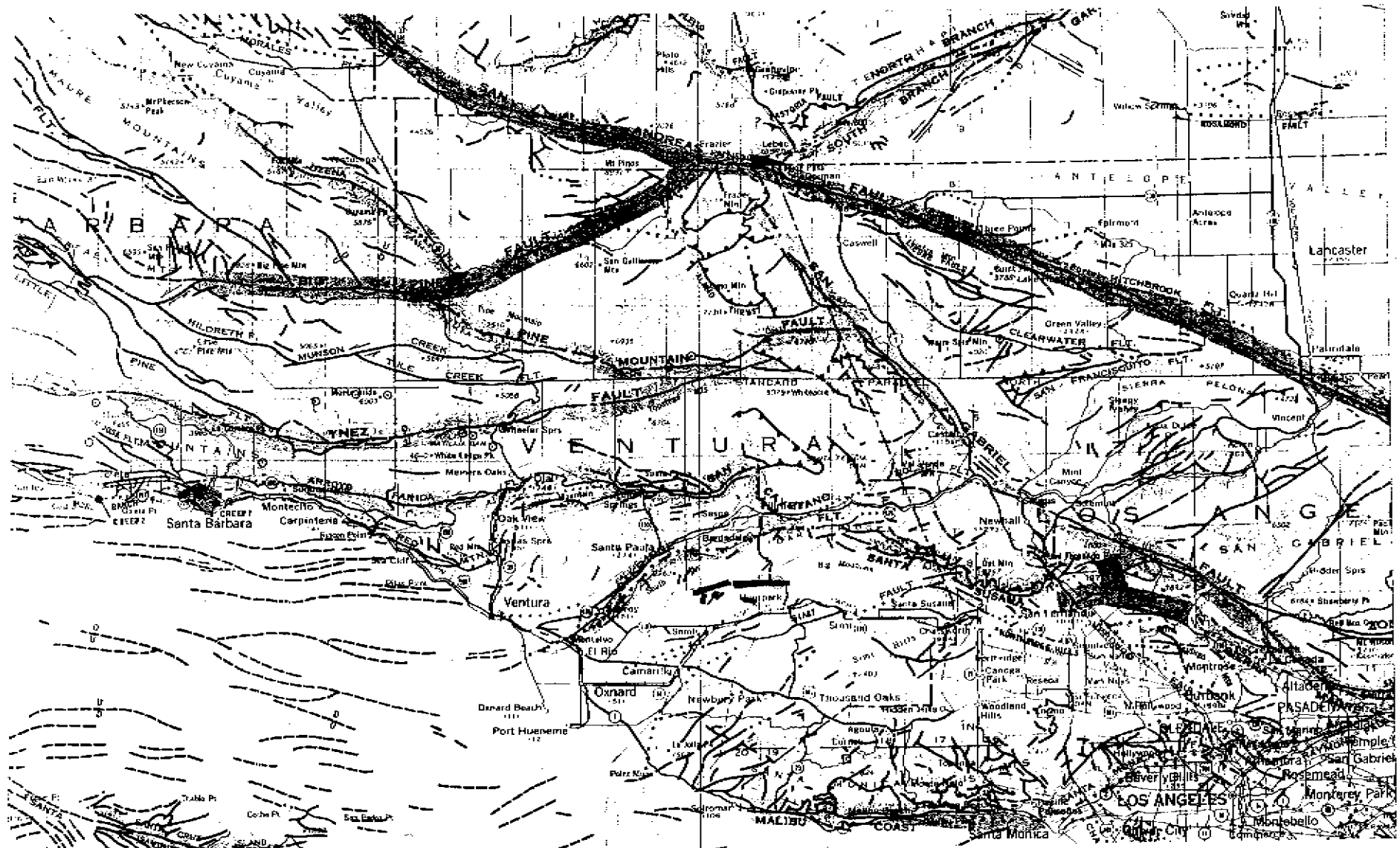
CALIFORNIA DIVISION OF MINES AND GEOLOGY

Fault Evaluation Report FER-56

September 8, 1977

1. Name of faults: Unnamed faults between Montalvo and Moorpark (see figure 1).
2. Location of faults: Santa Paula and Moorpark 7.5 minute quadrangles, Ventura County.
3. Reason for evaluation: Part of a ten-year program.
4. List of references:
  - a) Jennings, C.W., 1975, Fault map of California with locations of volcanoes, thermal springs, and thermal wells: California Division of Mines and Geology, Geologic Data Map Series, Map no. 1, scale 1:750,000.
  - b) Weber, F.H., Jr., Cleveland, G.B., Kahle, J.E., Kiessling, E.F., Miller, R.V., Mills, M.F., Morton, D.M., and Gilweck, B.A., 1973, Geology and mineral resources study of southern Ventura County, California: California Division of Mines and Geology, Preliminary Report 14, 102 p., map scale 1:48,000.
  - c) Weber, F.H., Jr., Kiessling, E.W., Sprotte, E.C., Johnson, J.A., Sherburne, R.W., and Cleveland, G.B., 1975, Seismic hazards study of Ventura County, California: California Division of Mines and Geology, Open File Report 76-5LA, 396 p., 9 pl., map scale 1:48,000.
  - d) Zlony, J.I., Wentworth, C.M., Buchanan-Banks, J.M., and Wagner, H.C., 1974, Preliminary map showing recency of faulting in coastal southern California: U.S. Geological Survey, Miscellaneous Field Studies Map MF-585, 15 p., map scale 1:250,000, 3 pl.

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 FIGURE 1. General locations of unnamed faults  
 discussed in this report (Jennings, 1975, scale  
 1:750,000), slightly modified.



## 5. Summary of available data:

Data on these faults are scanty. Most of the faults are shown only on three sources, all regional in scope. For the purposes of this report, I have arbitrarily designated these faults "A", "B", "C", "D", "E", and "F" (see figure 2).

### Fault A

Fault A is depicted only on Ziony, et al. (1974, reproduced here as figure 2), and is shown as cutting a unit of Quaternary age. Weber, et al. (1973, plate 1) show the area as overlain by older alluvium (late Quaternary) with no faults present. The dip and sense of displacement are not noted.

### Faults B and C

Faults B and C are shown by Ziony, et al. (1974) as cutting a Quaternary unit. Weber, et al. (1973, plate 1) show the faults as cutting San Pedro Formation (Plio-Pleistocene); and Weber, et al. (1975, plate 5B) show the faults as cutting older valley fill (late to middle Quaternary). The dips and senses of displacement are not noted.

### Fault D

Fault D is depicted by Ziony, et al. (1974) as a hypothetical fault which offsets a Quaternary unit. Weber, et al. (1975, plates 5A and 5B) show the fault as cutting a unit that they think might be older valley fill, but are not certain. Their note 14 on plates 5A states, however, "Terrace deposits faulted up to north, probably in excess of 25 to 50 feet." They also indicate they think the fault may cut late Quaternary sediments ("LQ"). The dip is not noted.

MISCELLANEOUS FIELD STUDIES  
MAP MF-585  
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Figure 2. Ziony, et al. (1974) showing  
designation symbols of faults used in this  
FER.



### Fault E

Ziony, et al. (1974) depict Fault E as cutting a Quaternary unit. Weber, et al. (1975, plate 5B) depict the fault as cutting older alluvium (late to middle Quaternary), the north block having risen relative to the south block. They also note that the fault was inferred from air photo interpretation and was not field checked.

### Fault F

Fault F is the only of these faults shown by Ziony, et al. (1974) as ("L") late Quaternary, based on geomorphic evidence. Note though, that the fault is hypothetical according to Ziony, et al. Weber, et al. (1973, plate 2) depict the fault as a certainty, and as cutting older alluvium (late Quaternary) but overlain by younger alluvium (Holocene). Weber, et al. (1975, plate 5B) show the fault similarly (cutting older valley fill instead of older alluvium), except at the fault's eastern end where it is buried under the same, older alluvial unit.


6. Interpretation of air photos: Not attempted.
7. Field observations: Not attempted.
8. Conclusions:

There is no evidence that any of these faults has been active during Holocene time. All have apparently been active sometime during the Quaternary, and at least one has moved during the late Quaternary. Some of the faults may not exist. Not much else is known about these faults.

9. Recommendations:

Based on the present project guidelines, and the data summarized herein, zoning of these faults is not recommended at this time. These faults lie within an area which may eventually be developed, <sup>but</sup> ~~however~~, probably not <sup>in the</sup> immediate <sup>future</sup> ~~by~~. Some of these faults may have been active during the Holocene, but proving activity without trenching or other detailed investigations is unlikely. Further work is recommended, although time and budget limitations will probably prohibit the work from being completed as a part of this project.

10. Investigating geologist's name; date:

  
Theodore C. Smith  
Assistant Geologist  
September 8, 1977

*I agree that zoning is  
inadvisable without better  
data. If time is available,  
airphoto and field checking  
is recommended, as the faults  
lie within a metropolitan area.*  
*ELH*  
*9/21/77*



FROM WEBER, ET AL (1975)  
Plate 5B, showing fault designations used  
in this FER.

